

DOCUMENT RESUME

ED 117 945

FL 006 349

AUTHOR Robbins, Janet L.
TITLE Norms of Descriptive Adjective Responses to Common Nouns.
PUB DATE [73]
NOTE 71p.; Not available in hard copy due to marginal legibility of original document

EDRS PRICE MF-\$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS *Adjectives; *Association (Psychological); Association Tests; Cognitive Processes; Form Classes (Languages); Language Patterns; Language Research; Language Usage; Linguistic Performance; *Nominals; *Psycholinguistics; *Semantics; Verbal Stimuli; Vocabulary; Vocabulary Skills

IDENTIFIERS *Word Association

ABSTRACT

This paper gives the results of a controlled experiment on word association. The purpose was to establish norms of commonality of primary descriptive adjective responses to common nouns. The stimuli consisted of 203 common nouns selected from 10 everyday topics of conversation, approximately 20 from each topic. There were 350 subjects, 50% male, 50% female, selected from various regions in the United States and stratified into three age groups: 15-22, 51-65, and 66 and older. The norms of commonality were established by counting every identical repetition of noun-adjective pairs. Two tables give: (1) the index of common nouns used as stimuli in the experiment; and (2) the norms of descriptive adjective responses to common nouns, including the number of repetitions for each adjective. The identical response pairs with the largest numbers, such as 170 for winter--cold and 107 for circle--round, are considered of significant interest. (TL)

* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *

ED117945

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY.

NORMS OF DESCRIPTIVE ADJECTIVE RESPONSES TO COMMON NOUNS

J. L. Robbins

University of Minnesota

BEST COPY AVAILABLE

BEST COPY AVAILABLE

FL006349

NORMS OF DESCRIPTIVE ADJECTIVE RESPONSES TO COMMON NOUNS

Introduction

The purpose of this controlled, or restricted, word association experiment was to establish norms of commonality of primary descriptive adjective responses to 203 common nouns grouped within ten everyday topics of conversation. The common nouns were selected by choosing the usual topics of conversation with approximately twenty common nouns for each topic.

Although few "syntagmatic responses," or descriptive adjective responses to common nouns, are given on a free word association test (Deese, 1965, 106), a controlled, or restricted, word association test can be given. In a controlled word association test, each subject's response is "chosen from a specified semantic or conceptual category" (Cramer, 1968, 24).

To establish these norms subjects were selected by stratified age groups. Probably "regional or geographic differences within the United States may not be large" for word association tests (Entwistle, 1966, 58); yet, for the present study, the subjects were selected in groups from each region of the United States. Only the first letter of each stimulus noun was capitalized, because all capital letters lead to more proper names as responses (Cramer, 1968). Verbal instructions were given to 20% of the subjects and written instructions were sent to the other 80% of the subjects to negate any differences in method of instruction, which can influence results (Cramer, 1968). Since females tend to give more common responses on

free association tests (Palermo and Jenkins, 1965b), 50% of the subjects are females and the other 50% of the subjects are males in the present study.

Method

Subjects

Three hundred and fifty subjects in two northern Midwestern, two Western, one Eastern, and three Southern states volunteered. The states were Minnesota, Iowa, Colorado, California, Texas, Oklahoma, Florida, and Pennsylvania. Approximately half of the subjects were males, and the other half were females. Subjects were selected equally in each of the following age groups: fifteen through twenty-two years, fifty-one through sixty-five years, and sixty-six years and older. Approximately two-thirds of the subjects had attended college and the other one-third had attended high school. Most college majors and occupations and professions were sampled. All subjects were normally functioning members of society in the United States.

Stimuli

The stimuli for the pilot study of 100 subjects were a written list of 20 common nouns. The norms of commonality were established by counting every identical repetition of the noun-adjective pairs. This revealed at least 29% of the 100 pairs. For example, out of 100 subject's responses for student, the responses included 30 for young, 23 for busy, and 8 for intelligent, or a total of 61%. Next, the first time a response was counted, it was considered an original response and only a repetition thereafter. This led to at least 25% repetitions for each pair. An illustration is student, with repetitions of 29 for young, 22 for busy, and 7 for intelligent.

The stimuli for the next 100 subjects were a written list of 200 common nouns, based on 10 common topics of conversation. The

stimuli were divided into groups of twenty words for ten general areas of life, but the words Russian and Chinese were included as both a group of people and as a language subject. Establishment of the norms of commonality of the responses led to the fact that 132 of the nouns from the present author's two original word association tests met the established criteria of yielding 29% identical responses and 25% repetitions.

The 132 common nouns which met the criteria were the written stimuli for the next 125 subjects. Finally, the four written stimuli, fall, winter, spring, and summer, were sent to an additional 25 subjects in the three Southern states to add balance to the commonality norms.

Stimulus Materials

The only stimulus materials were the letter of introduction and explanation, the test of stimuli words, each subject's own pencil or pen, and for the second 100 subjects each subject's own clock or watch.

Procedure

Eighty per cent of the subjects received the written letter of instructions and the list of written stimuli. The other 20% of the subjects were read the written letter of instructions and were given the list of written stimuli. Only the first letter of each stimulus word was capitalized. (See Table 1.)

The letter of instructions for the second 100 subjects follows.

Since I am writing my Honors Thesis in Psychology at the University of Minnesota, I would appreciate having you use a clock with a second hand and time to the next full second the length of time that it takes you to write a descriptive adjective, such as blue, big, nice, etc., after each noun or listed word.

Thank you for your cooperation.

The letter of instructions for the other 250 subjects follows.

Since I am writing my Honors Thesis in Psychology at the University of Minnesota, I would appreciate having you write your first descriptive adjective response, such as blue, big, nice, etc., after each noun or listed word.

Thank you for your cooperation.

The 80% of the subjects who received their stimuli by mail, sent them back to the experimenter. The other 20% turned them into the experimenter when the subject had completed writing his responses.

The return rate of subject's tests for the pilot study was 100%. The author originally gave or sent one test to each of 110 subjects for the second group of 100 returned tests; thus, 100 returned the test promptly, nine were never returned, and one was returned much later. Of 200 tests sent out, the third group of 125 tests were collected. The return rate for the four balancing word tests was 100%. Since the norms were established by stratified age groups and sections of the country of returned controlled word association tests, the author feels that the return rate is irrelevant to the results.

Results

The norms of commonality of primary adjective responses to common nouns are presented in Table 2. (See Table 2.) Although the cut off criteria provided the basis of the study, the larger number of identical response pairs, such as 170 for winter--cold and 107 for circle--round are of most interest to the author.

The listing for 100 subjects of Chinese and Russian included in each a group of people and a language for study resulted in two different sets of pairs of identical responses. When the listing of Christians for 92 subjects was included under groups of people and under happy occasions, the responses were usually duplicates.

Although the reaction times of each of the second 100 subjects to each stimulus noun were collected and analyzed, these data seem irrelevant to the establishment of norms of commonality.

Norms still need to be established for children under the age of 15 years. It would have been better to have used lower identical response pair and repetition scores for the cut off point for giving the common nouns as stimuli to the last 125 subjects. Several of the common nouns were close to the cut off point and every group of 100 subjects does not respond with the same number of identical response pairs and repetitions.

The index for the order of the 203 common nouns is in Table 1. (See Table 1.)

Norms of commonality of primary descriptive adjective responses to common nouns with each noun's tabulated numbers of identical responses are in Table 2. (See Table 2.)

Table 1

Index of Common Nouns

Mother	Government	Psychology
Father	Church	Art
Sister	City	Music
Brother	Town	Education
Cousin	County	Philosophy
Aunt	Country	History
Uncle	Village	Engineering
Grandmother	Township	Theatre
Grandfather	Borough	Biology
Self	Hospital	Forestry
Teacher	Office	German
Student	Class	Law
Minister	Representative	Square
Doctor	Senator	Circle
Dentist	President	Triangle
Librarian	Judge	Winter
Employer	Jury	Spring
Employee	Mathematics	Summer
Supervisor	Physics	Fall
Child	Chemistry	Mountains
School	English	Valley
College	Spanish	Plains
University	French	Desert

Arctic	Train	Blouse
Europe	Jet	Sweater
Africa	Airplane	Slacks
Asia	Desk	Suit
Americas	Stool	Coat
Tundra	Shelves	Hat
Rain	Vegetables	Gloves
Sun	Meat	Shirt
Snow	Milk	Belt
Sleet	Fruit	Socks
Antarctica	Cereal	Shoes
Australia	Juice	Boots
Sand	Tomato	Umbrella
Rock	Ham	Mittens
Table	Cheese	Hose
Chair	Bread	Slip
Piano	Orange	Scarf
Organ	Cake	Jacket
Bed	Pie	Bank
Couch	Apple	Purse
Stove	Lettuce	Loan
Refrigerator	Steak	Payment
House	Egg	Check
Car	Tuna	Cash
Truck	Butter	Dollars
Bicycle	Coffee	Cents
Tricycle	Dress	Savings
Bus	Skirt	Insurance

Will	Catholics
Donation	Atheists
Gift	Birth
Gold	Death
Economy	Birthday
Trade	Christmas
Employment	Easter
Compensation	Passover
Welfare	Holiday
Finances	Conversion
Whites	Baptism
Blacks	Marriage
Negroes	Divorce
Chicanos	Location
Minority	Relocation
Citizens	Anniversary
Foreigners	Wedding
Visitors	Festival
Russian	Feast
Chinese	Reunion
Americans	Thanksgiving
Christians	
Jews	
Hindus	
Moslems	
Indians	
Mexicans	
Agnostics	

Table 2

Norms of Descriptive Adjective Responses to Common Nouns

Mother (n=325)		(Father)	
		good	39
kind	47	kind	10
loving	44	stern	9
warm	23	big	8
good	13	dependable	6
beautiful	6	proud	4
young	5	gentle	4
understanding	5	nice	4
sweet	4	strict	3
patient	3	authoritative	3
lovable	2	old	3
tender	2	helpful	2
my	2	respectful	2
fat	2	wonderful	2
protective	2	warm	2
gentle	2	dominant	2
nice	2	logical	2
weak	2		
		Sister (n=325)	
Father (n=325)		older	41
strong	41		

(Sister)		(Brother)	
little	32	older	29
younger	22	younger	16
cute	20	little	9
loving	16	handsome	6
pretty	8	friendly	5
friendly	6	good	4
sweet	5	fun	3
young	4	helpful	3
small	4	nice	2
nice	4	generous	2
beautiful	3	reliable	2
kind	3	young	2
happy	3	elder	2
intelligent	2	messed up	2
sassy	2	my	2
blond	2	funny	2
helpful	2	smart	2
good	2	understanding	2
her	2		
fussy	2	Cousin (n=225)	
energetic	2	first	23
favorite	2	distant	21
understanding	2	friendly	9
loved	2	kissing	7
		retard	3
Brother (n=325)		tall	3
big	47	good	3

(Cousin)

small	2
snobbish	2
girl	2
weird	2
country	2
close	2
older	2
mean	2

Grandmother (n=100)

loving	13
cold	3
pretty	2
gentle	2
small	2
old	2
sweet	2

Aunt (n=100)

older	5
great	4
pleasant	2
sweet	2
loving	2

Grandfather (n=100)

loving	8
patient	5
blind	3
dead	3
proud	2
honest	2
friendly	2
sturdy	2

Uncle (n=100)

favorite	5
rich	4
slim	3
jolly	3
great	2
big	2
balding	2

Self (n=100)

hopeful	7
egotistical	4
selfish	3
lonely	2
good	2

Teacher (n=325)

(Teacher)

older	22
intelligent	21
demanding	14
knowledgeable	12
stern	8
smart	7
good	7
strict	6
learned	5
kind	4
dedicated	3
excellent	3
capable	3
helpful	3
boring	3
respectful	2
interesting	2
emotional	2
considerate	2
aged	2
supervising	2
talking	2
concerned	2
eager	2
dull	2
hard	2

old	2
authoritarian	2
authoritative	2
Student (n=325)	
young	39
busy	30
studious	16
smart	16
intelligent	12
good	12
working	5
lazy	4
tired	3
poor	3
patient	2
single	2
interested	2
hard working	2
curious	2
bright	2
industrious	2
Minister (n=100)	
foreign	6
visiting	4

(Minister)

(Doctor)

14

understanding	4	our	2
		careful	2
Doctor (n=225)		knowledgeable	2
efficient	24	concerned	2
medical	15		
good	10	Dentist (n=100)	
family	8	painful	6
old	7	painless	6
busy	6	carefree	4
capable	5	talkative	4
helpful	4		
quack	4	Librarian (n=100)	
kind	4	strict	10
friendly	3	quiet	6
patient	3	aged	4
nice	3	efficient	3
white	3	silent	2
competent	3		
expensive	2	Employer (n=100)	
brilliant	2	stern	7
surgical	2	strict	3
educated	2	fair	2
reliable	2	reliable	2
special	2		
experienced	2	Employee (n=100)	
professional	2	reliable	4

(Employee)

(Child)

neat	3	first	2
good	2	naive	2
young	2	loving	2
sullen	2	noisy	2
ambitious	2	trusting	2
		cute	2
Supervisor (n=100)		dependent	2
understanding	3	naughty	2
bully	2		
old	2	School (n=100)	
efficient	2	brick	4
Child (n=225)		new	4
small	30	noisy	2
little	12	old	2
beautiful	9	College (n=100)	
sweet	7	small	13
young	7	defunct	7
innocent	6	large	2
lovable	3	accredited	2
happy	3		
blond	2	University	
smiling	2	corrupt	5
crying	2	bureaucratic	4
playful	2	democratic	4
inquiring	2	free	4

(University)

good

3

(Church)

concerned

2

hypocritical

2

Government (n=100)

corrupt

5

City (n=100)

bureaucratic

4

large

13

democratic

4

dirty

6

free

4

hot

2

good

3

expanding

2

neat

2

Church (n=225)

beautiful

2

beautiful

25

Town (n=225)

protestant

17

quiet

8

small

86

Catholic

6

friendly

21

stone

5

busy

5

spiritual

4

peaceful

3

big

3

old

3

large

3

cool

2

holy

3

clean

2

dull

3

quiet

2

active

2

little

2

good

2

sleepy

2

brick

2

our

2

irresponsible

2

down

2

Gothic

2

home

2

friendly

2

County (n=100)

large	9
smaller	3
rich	2
poor	2

(Borough)

small	3
noisy	2
busy	2
dark	2

Country (n=100)

free	8
green	5
beautiful	5
great	4

Hospital (n=100)

clean	7
sanitary	7
efficient	4
large	3
quiet	2

Village (n=100)

small	12
quaint	5
pretty	4
tiny	4
quiet	2

Office (n=100)

busy	5
empty	4
large	2
inner	2

Township (n=100)

small	6
square	5
adjoining	2

Class (n=100)

graduating	10
large	5
obnoxious	2

Borough (n=100)

winding	3
---------	---

Representative (n=100)

new	4
young	4

(Representative)

(Jury)

thoughtless

2

fair

4

talkative

2

dumb

3

Senator (n=100)

Mathematics (n=225)

young

5

higher

29

old

4

easy

27

incumbent

3

difficult

21

smiling

2

hard

15

boring

7

new

4

President (n=100)

corrupt

5

complicated

4

wise

4

numerical

3

responsible

3

fun

3

popular

3

hateful

2

confident

3

applied

2

responding

2

dull

2

algebraic

2

Judge (n=100)

logical

2

fair

9

complex

2

wise

6

mechanical

2

honorable

3

Physics (n=225)

critical

2

simple

14

Jury (n=100)

hard

12

hung

14

puzzling

11

(Physics)

English (n=225)

difficult	9	perfect	18
useful	7	fluent	16
nuclear	7	broken	14
scientific	4	good	14
dull	2	interesting	8
measured	2	difficult	4
theoretical	2	native	4
confusing	2	hard	3
harder	2	soft	3
molecular	2	spoken	3
quantum	2	friendly	3
geo	2	exciting	2
dry	2	poor	2
bad	2	fun	2
atomic	2	arrogant	2
interesting	2	modern	2
complex	2	fascinating	2
terrible	2	stuffy	2
boring	2	tricky	2

Chemistry (n=100)

Spanish (n=225)

smelling	9	speaking	18
bubbling	5	easy	14
interesting	4	musical	10
difficult	4	romantic	10
simple	2		

(Spanish)

poor	8
hard	5
good	5
fluent	4
difficult	4
dark	4
daring	3
melodic	3
artistic	2
interesting	2
challenging	2
flowing	2
nice	2
melodious	2
romance	2
classical	2

French (n=225)

romantic	12
easy	11
flowery	8
poor	6
beautiful	6
interesting	5
quaint	5

(French)

musical	5
nasal	5
precise	4
hard	4
difficult	3
old	2
Parisian	2
pleasant	2
gay	2
fluent	2
articulate	2
Canadian	2
fluid	2

Psychology (n=225)

human	18
child	17
interesting	15
abnormal	8
understanding	7
difficult	6
applied	5
unpopular	4
easy	3
behavioral	3

(Psychology)

(Art)

useful	3	fine	3
Freudian	3	pleasant	3
scientific	2	pretty	3
personal	2	displayed	2
poor	2	stimulating	2
overemphasized	2	Medieval	2
general	2		
mental	2	Music (n=325)	
fascinating	2	soothing	22
difficult	2	classical	22
pseudo	2	enjoyable	20
silly	2	quiet	19
existential	2	beautiful	14
social	2	loud	13
theoretical	2	soft	13

Art (n=325)

		melodious	7
		sweet	6
creative	31	refreshing	5
expressive	25	rock	4
beautiful	24	modern	3
pop	21	good	3
modern	13	restful	3
interesting	10	impressionist	2
colorful	9	symphonic	2
color	4	pleaseful	2
Grecian	3	jazz	2

(Music)

harmonious

2

folk

2

(Education)

great

2

formal

2

Education (n=225)

Philosophy (n=225)

higher

14

personal

13

special

12

living

9

continuing

11

my

8

necessary

10

interesting

8

secondary

5

Greek

7

good

5

ancient

7

dull

4

boring

5

completing

4

practical

5

helpful

4

life's

4

useful

3

great

4

laborious

3

simple

4

primary

3

deep

4

elementary

3

logical

3

simple

2

Platonic

3

essential

2

old

2

practical

2

senseless

2

learning

2

human

2

interesting

2

moral

2

inadequate

2

sound

2

liberal

2

Aristotlean

2

boring

2

necessary

2

hard

2

Cartesian

2

(Philosophy)

profound	2
stimulating	2
basic	2
thinking	2
irrelevant	2
dull	2

History (n=225)

old	31
ancient	28
interesting	10
recording	8
past	7
fascinating	6
living	5
changing	5
English	5
boring	4
dull	3
American	3
timeless	2
vital	2
Medieval	2
informative	2
fun	2

Engineering (n=225)

mechanical	30
electrical	21
civil	18
chemical	10
mathematical	8
mining	6
practical	6
building	5
structural	5
dull	4
boring	3
constructive	3
difficult	3
technical	3
exacting	2
hard	2
construction	2
industrial	2
drawing	2
useful	2
crowded	2
contract	2
space	2
county	2
essential	2

(Engineering)

aeronautical	2
dry	2

(Theatre)

absurd	2
fascinating	2

Theatre (n=225)

dramatic	18
living	15
progressive	9
entertaining	8
fun	8
beautiful	5
artful	5
uncouth	4
Guthrie	4
exciting	4
creative	3
enjoyable	3
good	3
movie	3
open	3
roudy	3
interesting	3
large	2
round	2
mysterious	2
avant gard	2
fantastic	2

Biology (n=100)

classifying	6
simple	6
interesting	5
difficult	5
living	4

Forestry (n=225)

green	25
preserving	12
beautifying	8
interesting	8
protective	6
woody	5
natural	5
seeding	4
important	3
conservative	3
practical	3
free	3
exciting	2
good	2
lonely	2

(Forestry)

Law (n=100)

peaceful	2	strict	4
necessary	2	ridiculous	4
dull	2	just	3
German (n=225)		complete	3
guttural	19	painful	3
intelligent	9	regulating	3
harsh	8	new	2
stout	7	peaceful	2
haughty	6	Square (n=225)	
hard	6	perfect	40
easy	4	geometric	15
handsome	3	flat	14
stubborn	3	four	8
rigid	3	cubical	5
industrious	3	large	5
rich	2	straight	5
early	2	rectangular	4
systematic	2	even	3
good	2	big	3
East	2	sharp	3
tough	2	equal	3
West	2	red	3
excellent	2	hard	2
difficult	2		

(Square)

equilateral

2

blue

2

round

2

(Triangle)

three-cornered

3

odd

2

big

2

Circle (n=225)

round

107

large

20

red

4

small

4

continuous

4

smooth

2

unending

2

whole

2

Winter (n=350)

cold

170

snowy

38

white

8

long

5

cool

3

wet

3

warm

3

rainy

3

foggy

2

clear

2

hard

2

icy

2

mild

2

bleak

2

howling

2

Minnesota

2

Triangle (n=225)

isosceles

25

equilateral

21

red

20

obtuse

9

three-sided

8

musical

7

pointed

6

right

4

love

3

geometrical

3

Spring (n=350)

green

36

rainy

34

(Spring)

(Summer)

pleasant	25	beautiful	21
beautiful	24	lazy	16
fresh	10	humid	4
wet	10	breezy	4
cool	7	flowering	3
lovely	4	scorching	3
foggy	3	steamy	3
windy	3	relaxing	3
nice	3	fun	3
stormy	2	dry	2
hospitable	2	bright	2
gentle	2	desolate	2
lazy	2	fragrant	2
bursting	2		
bright	2	Fall (n=350)	
lively	2	colorful	56
pleasant	2	brown	38
cozy	2	crisp	21
happy	2	cool	15
late	2	beautiful	14
refreshing	2	calm	14
		dry	11
		rainy	9
		warm	9
		windy	9
Summer (n=350)			
hot	94		
warm	37		

(Fall)

clear
foggy
pleasant
arid
brisk
dying

4
3
3
2
2
2

(Valley)

low
hidden
narrow
winding
fertile
hot

16
9
8
3
3
2

Mountains (n=325)

high
rocky
tall
lofty
snowy
beautiful
steep
rugged
burnt
barren
towering
purple
breath taking

55
27
22
18
15
14
9
3
2
2
2
2
2

Plains (n=325)

flat
rolling
sprawling
wider
broad
great
level
brown
open
western
vast
high
smooth
unending
golden
grassy

85
23
12
12
9
9
5
5
4
3
3
2
2
2
2
2

Valley (n=325)

green
deep
peaceful

67
43
20

Desert (n=325)

hot	40
dry	38
arid	31
sandy	20
shifting	10
barren	6
windy	3
huge	2
large	2

Africa (n=225)

hot	23
darkest	20
black	16
tropical	10
dark	7
wild	6
South	4
sandy	3
wealthy	3
huge	3
distant	2

Arctic (n=225)

cold	83
frigid	18
frozen	13
polar	9
icy	8
white	5
frozen	5
freezing	3

Asia (n=100)

Oriental	8
mysterious	7
warring	3
vast	3

Americas

beautiful	7
friendly	5
picturesque	4
connecting	2
productive	2

Europe (n=100)

old	11
beautiful	8
divided	4

Tundra (n=225)

(Sun)

frozen	29	blazing	4
cold	25	golden	2
mossy	9	Snow (n=225)	
desolate	8	white	68
vast	8	cold	19
treeless	7	drifting	8
windy	2	falling	7
barren	2	blowing	6
dry	2	melting	5
flat	2	sparkling	4

Rain (n=100)

wet	11	wet	3
falling	8	pretty	2
dripping	6	soft	2
gentle	2	Sleet (n=225)	

Sun (n=225)

hot	60	cold	31
bright	28	icy	22
warm	25	hard	12
red	8	wet	9
setting	5	sharp	8
soft	5	slippery	4
		miserable	4
		prickly	2

Antarctica (n=225)

cold	65
frozen	25
frigid	20
icy	12
distant	4
south	4
white	3
enormous	3
lonely	2
freezing	2

Australia (n=225)

afar	18
distant	7
far away	6
sandy	5
beautiful	5
empty	4
hilly	4
small	4
windy	4
green	4
far	4
big	4

(Australis)

large	4
southern	3
barren	2
interesting	2

Sand (n=225)

white	25
hot	26
smooth	17
fine	13
gritty	12
grainy	8
wet	7
soft	7
rough	6
warm	5
brown	5
scratchy	3
coarse	3
dry	3
golden	3
quick	2

Rock (n=225)

hard	94
------	----

(Rock)

solid	24
smooth	18
pretty	6
flat	2
heavy	2
strong	2
rough	2

Table (n=100)

round	17
carved	5
flat	4
large	2

Chair (n=100)

comfortable	9
straight	6
soft	7
broken	2

Piano (n=100)

beautiful	7
polished	4
blond	2

Organ (n=100)

pipe	20
hand	4
electrical	2
antique	2

Bed (n=225)

soft	55
comfortable	33
warm	10
sleepy	9
comfort	3
water	3

Couch (n=225)

comfortable	28
soft	25
long	14
green	6
hard	5
relaxing	5
sagging	5
reclining	4
dirty	4
cozy	3

(Couch)

uncomfortable

2

velvet

2

inviting

2

pretty

2

sexy

2

restful

2

comfy

2

Stove (n=225)

hot

69

cooking

11

gas

10

cold

7

black

4

dirty

4

warm

2

electric

2

potbellied

2

red

2

white

2

(Refrigerator)

cooling

8

electric

7

new

5

empty

5

old

3

modern

3

frost free

2

useable

2

pink

2

preserving

2

noisy

2

House (n=100)

green

7

old

6

large

5

white

5

empty

5

Car (n=100)

new

10

old

7

small

7

rusty

4

Refrigerator (n=225)

cold

53

white

18

full

10

large

8

Truck (n=100)

large	13
powerful	4
dirty	4
noisy	3

Bicycle

speedy	12
new	4
touring	3
red	2

Tricycle (n=225)

small	41
red	28
childish	13
three-wheeled	6
sturdy	5
fun	5
blue	4
shiny	3
easy	3
little	3
squeaking	2
toy	2
new	2

Bus (n=225)

smelly	61
dirty	47
red	27
crowded	10
yellow	9
slow	8
school	8
large	7
noisy	4
old	4
city	4
mini	3
empty	3
uncomfortable	3
convenient	2
useful	2

Train (n=225)

moving	31
slow	29
long	29
fast	22
noisy	12
Amtrak	5
choo-choo	5

(Train)

old	3
electric	2
whistling	2
crowded	2
obsolete	2
diesel	2
dirty	2

Airplane (n=100)

soaring	6
big	6
old	5
wingless	4
silver	2

Desk (n=100)

Jet (n=225)

fast	46
swift	9
silver	8
streaking	7
noisy	6
jumbo	6
roaring	5
crashing	4
high	3
loud	3
big	3
black	2
smooth	2
roomy	2
scary	2

solid	12
cluttered	5
messy	4
empty	4
small	3

Stool (n=100)

folding	8
small	5
tall	5
round	3

Shelves (n=100)

high	4
long	3
full	3
folding	3

(Shelves)

narrow

3

empty

3

dusty

2

Vegetables (n=225)

green

57

fresh

21

variety

10

leafy

9

crisp

7

raw

6

nourishing

6

tasty

6

good

6

healthy

5

growing

3

cooked

2

terrible

2

orange

2

mixed

2

crunchy

2

Meat (n=100)

red

34

raw

14

hot

13

(Meat)

delicious

12

juicy

11

fresh

10

lean

10

expensive

10

dried

7

tender

7

frozen

5

tasty

5

good

4

tough

3

rare

3

dead

2

Milk (n=225)

white

31

cold

28

whole

24

fresh

17

sour

17

skim

9

sweet

5

nutritious

5

chocolate

5

cool

4

healthful

4

(Milk)

raw	3
warm	3
wholesome	2
creamy	2
expensive	2

(Cereal)

cold	15
soggy	5
sticky	4
bland	4
good	3
cooked	3
crisp	3
wheat	2
whole grain	2
breakfast	2
morning	2
grainy	2

Fruit (n=225)

fresh	42
juicy	20
sweet	14
ripe	13
good	11
firm	6
citrus	5
acid	3
cold	3
yellow	2
crisp	2
delectable	2
canned	2

Juice (n=225)

tart	81
orange	44
sweet	28
cold	12
refreshing	12
sour	6
tangy	4
liquid	3
wet	3
tomato	2
good	2

Cereal (n=225)

dry	37
crunchy	35
hot	35

(Juice)

tasty	2
morning	2
fruit	2

(Ham)

delicious	2
-----------	---

Cheese (n=225)

yellow	20
--------	----

soft	9
------	---

tangy	7
-------	---

sharp	7
-------	---

good	6
------	---

moldy	6
-------	---

Swiss	5
-------	---

blue	5
------	---

mild	4
------	---

Colby	4
-------	---

aged	3
------	---

cream	3
-------	---

cottage	3
---------	---

smooth	3
--------	---

rancid	2
--------	---

sliced	2
--------	---

delicious	2
-----------	---

filling	2
---------	---

dry	2
-----	---

green	2
-------	---

smelly	2
--------	---

hard	2
------	---

Tomato (n=225)

red	59
-----	----

ripe	21
------	----

juicy	16
-------	----

fresh	11
-------	----

green	8
-------	---

yellow	7
--------	---

rotten	3
--------	---

large	3
-------	---

thick	2
-------	---

cherry	2
--------	---

acid	2
------	---

soup	2
------	---

plump	2
-------	---

Ham (n=100)

thick	6
-------	---

lean	5
------	---

pink	3
------	---

fat	2
-----	---

fresh	2
-------	---

Bread (n=225)

white	35
fresh	24
stale	18
soft	11
dry	9
moldy	9
crusty	8
brown	6
rye	6
good	5
dark	5
warm	5
whole wheat	4
wheat	3
baked	2
toasted	2
homemade	2

(Orange)

ripe	6
rotten	5
juice	5
bright	4
delicious	4
navel	4
good	3
large	2
small	2
peeled	2
big	2
sweetest	2
cold	2
nutricious	2
tasty	2
fresh	2
yellow	2

Orange (n=225)

juicy	40
round	19
sweet	11
large	7
orange	7
sour	6

Cake (n=225)

chocolate	39
sweet	27
fluffy	22
white	12
layer	11
coffee	6

(Cake)

delicious	6
crumbly	5
moist	5
pretty	5
fresh	4
soft	3
angel food	3
fattening	3
birthday	3
frosted	2
dry	2
carrot	2
rich	2
good	2

(Pie)

pumpkin	4
soft	4
sour	3
tasty	3
strawberry	2
fattening	2
good	2
pecan	2
pizza	2
favorite	2
filling	2
fruit	2
fruity	2

Apple (n=225)

Pie (n=225)

		red	60
apple	28	crisp	18
juicy	27	tart	17
crusty	14	wormy	14
large	12	juicy	13
fresh	11	green	7
delicious	7	delicious	6
blueberry	7	ripe	6
lemon	4	big	5
cherry	4	crunchy	5

(Apple)

hard	4
Harellson	3
sour	2
fresh	2
baked	2

Lettuce (n=225)

green	53
crisp	49
leafy	27
fresh	9
crispy	5
head	4
crunchy	4
salad	3
leaf	3
hick	2
bitter	2
boycotted	2

Steak (n=225)

rare	41
tender	23
juicy	22
red	12

(Steak)

tough	11
thick	9
good	7
medium	7
well done	5
beef	4

expensive	4
-----------	---

T-bone	3
--------	---

big	2
-----	---

tasty	2
-------	---

delicious	2
-----------	---

warm	2
------	---

Egg (n=100)

fresh	12
-------	----

large	6
-------	---

rotten	3
--------	---

small	3
-------	---

Tuna (n=225)

oily	17
------	----

light	12
-------	----

chunky	12
--------	----

canned	10
--------	----

dark	9
------	---

(Tuna)

smelly 8
 fresh 8
 fishy 8
 white 7
 good 4
 greasy 4
 flakey 3
 hot 2

chunk 2

Chicken of the Sea 2

Starkist 2

delicious 2

large 2

tasty 2

Butter (n=225)

soft 30

yellow 28

fresh 14

creamy 14

sweet 9

rancid 4

saltless 3

cold 3

greasy 3

rich 3

melted 3

apple 2

melty 2

melting 2

salty 2

oily 2

smooth 2

Coffee (n=225)

black 46

hot 26

strong 20

bitter 11

rich 6

aromatic 5

stale 5

roasted 3

brown 3

good 2

fresh 2

Dress (n=225)

pretty 27

short 19

long 15

(Dress)

(Skirt)

red	10	nice	2
blue	9	Blouse (n=225)	
new	8		
formal	5	white	35
nice	5	sheer	11
fashionable	3	loose	11
lovely	3	pretty	10
cotton	3	floral	7
indecent	2	soft	7
colorful	2	sleeveless	6
green	2	see through	6
Skirt (n=225)		clean	5
		flimsy	3
short	76	green	3
pleated	15	tight	3
long	11	lacy	3
mini	6	frilly	3
blue	5	silk	2
wool	5	Sweater (n=225)	
dirty	4		
loose	4	warm	61
full	4	tight	12
tight	3	blue	10
plaid	3	pretty	8
brown	2	soft	7

(Sweater)

bulky	6
woolen	5
comfortable	3
knit	3
angora	3
hot	2
cardigan	2
nice	2
cashmere	2

Slacks (n=100)

blue	6
flaring	6
worn	5
black	5
long	3
baggy	3
pink	2
neat	2

Suit (n=100)

seasucker	4
black	2
brown	2
soft	2
dark	2

Coat (n=225)

warm	31
heavy	20
slicker	12
long	9
winter	6
short	4
fur	4
bulky	4
over	2
leather	2
woolen	2
brown	2

Hat (n=100)

floppy	6
large	5
high	5
white	3
torn	3
brimless	2
flashy	2

Gloves (n=225)

warm	32
leather	20

(Gloves)

white	14
heavy	8
kid	6
stretch	5
long	4
brown	3
suede	3
furry	2
soft	2
cold	2
covering	2

Shirt (n=100)

white	8
clean	4
blue	4
floral	3
plaid	2
stripped	2

Belt (n=100)

wide	9
black	8
long	4
snug	3

(Belt)

worn	2
braided	2

Socks (n=225)

white	17
stretch	15
warm	12
wool	12
black	10
holey	8
clean	6
argyle	5
knee	4
sweat	4
smelly	3
covering	3
dirty	3
nylon	3
long	2
fuzzy	2
bright	2

Shoes (n=225)

comfortable	18
brown	17

(Shoes)

new	13
black	12
leather	9
old	7
worn	6
tight	5
protective	5
walking	4
white	4
sturdy	4
polished	4
high	4
tennis	3
shiny	2
earth	2
suede	2
patent	2

(Boots)

leather	4
heavy	3
waterproof	3
practical	3
shiny	2
protective	2
brown	2

Umbrella (n=100)

clear	11
black	4
huge	4
ribbed	4
wet	3
pretty	2

Mittens (n=225)

warm	51
red	17
woolen	12
knitted	10
fluffy	5
wooly	4
yellow	4
ski	3

Boots (n=225)

high	40
black	14
warm	12
rubber	10
red	4
leaky	4

(Mittens)

fuzzy	3
pretty	2
wet	2
cold	2

Hose (n=225)

sheer	21
nylon	14
panty	13
long	11
garden	10
snagged	9
water	8
rubber	7
clear	6
wet	5
silk	5
short	3
fire	3
support	2
non-run	2

Slip (n=225)

white	31
pink	14

(Slip)

half	12
lacy	9
short	8
nylon	6
silk	5
silky	4
sexy	3
soft	3
cotton	3
slippery	3
clinging	2
slinky	2

Scarf (n=225)

pretty	24
long	17
warm	16
red	9
silk	8
lengthy	7
sheer	6
square	5
pink	5
bright	5
woolen	5

(Scarf)

green	3
wide	2
plaid	2
blue	2

(Bank)

river	2
convenient	2
gray	2

Purse (n=225)

Jacket (n=100)

		large	9
short	10	empty	9
warm	8	messy	8
washable	4	black	8
red	3	bulky	8
green	2	small	7

Bank (n=225)

		leather	7
		coin	6
savings	30	heavy	4
large	13	full	3
money	10	red	2
secure	8	white	2
big	6	shoulder	2
piggy	6	cluttered	2
safe	5	stolen	2
rich	5	clutch	2
soft	3		
security	3		
solid	2		

Loan (n=225)

small	27
large	13

(Loan)

(Payment)

bank	7	regular	3
poor	5	last	3
term	5	loan	3
financial	5	overdue	3
helpful	5	prompt	2
easy	4	late	2
installment	3		
ample	2	Check (n=100)	
unwise	2	bouncing	5
joint	2	bad	5
student	2	personal	3
necessary	2	lost	3
big	2		

Cash (n=225)

Payment (n=225)

		green	22
large	93	petty	21
down	31	ready	17
hard	25	cold	15
monthly	14	lost	10
time	13	hard	9
final	9	little	7
small	8	jingly	4
cash	7	loose	4
installment	6	quick	3
big	5	small	3
first	4		

(Cash)

necessary

2

handy

2

good

2

rich

2

immediate

2

Dollars (n=225)

green

35

silver

31

many

17

round

16

few

8

ten

3

valuable

2

crisp

2

disappearing

2

American

2

unit

2

hundred

2

Cents (n=225)

few

37

copper

21

many

7

loose

5

small

5

(Cents)

ten

5

lost

3

fifty

3

common

3

jingling

3

five

3

no

3

little

2

pennies

2

worthless

2

Savings (n=100)

small

18

large

5

dual

2

helpful

2

Insurance (n=100)

free

3

expensive

3

faulty

3

insufficient

3

Will (n=225)

final

34

last

27

(Will)

(Donation)

strong 13

money 2

legal 7

thoughtful 2

determined 5

cheap 2

good 4

liberal 2

probate 4

Gift (n=225)

long 3

free 3

loving 24

important 2

birthday 14

benevolent 2

thoughtful 10

Donation (n=225)

small 10

small 23

generous 9

generous 20

beautiful 8

large 12

expensive 7

charitable 11

pretty 6

free 9

Christmas 5

charity 7

surprise 3

big 6

free 3

gift 5

special 3

one 5

heartfelt 2

helpful 4

parting 2

deductible 3

wedding 2

willing 2

love 2

kind 2

nice 2

poor 2

happy 2

Gold (n=225)

yellow	21
pure	17
shining	14
shiny	12
old	9
valuable	7
expensive	7
solid	5
beautiful	5
hard	3
glittering	3
pretty	3
rich	3
fool's	3
bright	3
sparkling	2
metallic	2
silver	2
heavy	2

Economy (n=225)

false	16
poor	14
fluctuating	11

(Economy)

sound	10
rising	10
bad	7
unstable	5
inflationary	5
thrifty	4
tight	4
stable	3
American	3
balanced	2
national	2
political	2
faltering	2
lousy	2
declining	2

Trade (n=100)

free	11
equal	5
unwise	3
common	2

Employment (n=100)

scarce	7
--------	---

(Employment)

full	7
equal	5
sound	4
useful	3

Welfare (n=100)

growing	8
public	8
popular	2
free	2

Compensation (n=225)

minimal	22
workman's	16
small	14
fair	7
money	5
adequate	5
monetary	4
regular	4
unemployment	3
good	3
old	3
sufficient	3
ample	3
just	3
necessary	2
low	2
big	2

Finances (n=225)

high	16
poor	12
unstable	9
substantial	8
low	5
lost	5
balancing	5
good	4
necessary	3
bad	3
stable	3
monetary	3
household	3
big	2
increasing	2
short	2
dwindling	2

(Finances)

Blacks (n=225)

rich 2
needed 2
troubled 2

massive 17
athletic 11
advancing 7

Whites (n=225)

racist 6

ambitious 15

bad 6

good 8

dark 5

many 7

minority 4

egg 5

jet 4

majority 5

militant 3

rich 4

oppressed 3

dress 4

poor 3

prejudicial 4

beautiful 2

respectful 4

dull 2

tall 4

southern 2

beautiful 3

northern 2

proud 3

protesting 2

pale 3

many 2

light 2

African 2

intelligent 2

singing 2

predominant 2

Negroes (n=225)

middle class 2

black 26

nice 2

old 15

(Negroes)

singing	9
southern	8
lazy	6
African	6
many	3
poor	3
race	3
stacky	2
proud	2
friendly	2
American	2
deprived	2
good	2
rich	2
discriminated	2

Chicanos (n=225)

striking	12
Mexican	11
dirty	10
brown	10
few	5
laboring	5
squatty	5
poor	5

(Chicanos)

good	4
young	3
advancing	3
Spanish	2
minority	2
angry	2
deprived	2
swarthy	2
cheerful	2
emotional	2
exploited	2

Minority (n=225)

small	50
clamoring	17
growing	10
silent	7
few	5
underprivileged	5
unreasonable	4
vocal	4
oppressed	4
radical	3
poor	2
black	2

Citizens (n=225)

(Foreigners)

American	15	disrespectful	2
natural	12	calm	2
worthy	10	wealthy	2
good	8	inquisitive	2
working	8	Visitors (n=225)	
concerned	7	friendly	21
free	7	welcome	18
aging	6	foreign	16
loyal	6	curious	11
many	5	pleasant	10
thoughtful	5	happy	9
United States	5	polite	4
senior	4	few	3
responsible	3	hospital	3
solid	3	many	3
sceptical	2	noisy	2
active	2	unexpected	2
unaware	-2	interesting	2
poor	2	lonely	2
interested	2		
informed	2	Russian (n=225) ¹	
young	2	strong	14
Foreigners (n=100)		difficult	13
visiting	10	cruel	11

(Russian)		Chinese (n=225) ¹	
hard	10	yellow	17
cold	8	crafty	11
militant	6	red	9
unknown	6	cruel	5
black	4	Oriental	4
friendly	3	industrious	4
red	3	heavy	3
Communitic	2	quiet	3
stubborn	2	huge	3
loud	2	beautiful	3
cunning	2	good	3
haughty	2	hard working	3
easy	2	slant eyed	3
singing	2	smart	3
puzzling	2	intelligent	2
emotional	2	yellow skinned	2
unhappy	2	Mandarin	2
enigmatic	2	Eastern	2
perplexing	2	visiting	2
complex	2	small	2
white	2	few	2
gutteral	2		
tzarist	2	Americans (n=225)	
interesting	2	happy	13

(Americans)

Christians (n=225)²

young	9	loving	88
loyal	7	good	24
good	5	faithful	21
intelligent	5	religious	20
beautiful	5	happy	13
proud	5	naive	11
ugly	5	protestant	6
patriotic	5	devout	5
busy	4	hypocritical	5
rich	4	kind	4
many	3	many	3
quiet	3	crusading	3
native	3	persecuted	3
grumpy	2	proselytising	3
friendly	2	early	3
materialistic	2	truthful	3
white	2	singing	3
fat	2	forgiving	3
industrious	2	concerned	2
confused	2	irrational	2
noisy	2		
middle class	2	Jews (n=225)	
conglomerate	2	concerned	13
North	2	wealthy	12
informed	2		

(Jews)

(Hindus)

greedy	11	mysterious	3
religious	9	mystic	3
persecuted	8	poor	3
deceitful	5	dark	3
good	4	deceitful	3
evil	4	passive	3
orthodox	4	good	3
squabbling	4	Asian	2
boastful	4	peaceful	2
thrifty	4	humanly	2
suppressed	3	brown	2
trying	2	ancient	2
stingy	2		
devoted	2		
honest	2		
clanish	2		
European	2		

Moslems (n=225)

Hindus (n=225)

		black	11
		wealthy	8
		kneeling	7
		warring	7
		Eastern	5
destructive	16	religious	5
praying	16	unknown	3
Indian	9	ritualistic	3
Eastern	7	Arabic	3
murderous	6	interesting	3
many	3	secular	2

(Moslems)

veiling	2
handsome	2
faithful	2
praying	2
Arab	2
foreign	2

Mexicans (n=225)

laboring	23
colorful	13
poor	8
friendly	6
Spanish	6
brown	6
migrant	5
dark	5
singing	5
dancing	4
dirty	3
musical	2
struggling	2

Indians (n=225)

American	36
red	26
vanishing	9
red skinned	6
tribal	6
angry	5
artistic	3
wild	3
brave	3
poor	3
peaceful	2
stealthy	2
mistreated	2
sad	2
good	2
struggling	2

Agnostics (n=100)

rioting	11
cold	8
hating	6
crazy	2
dense	2

Catholics (n=225)

devout	34
hypocritical	14

(Catholics)

(Atheists)

religious	11	selfish	3
kneeling	6	sad	3
Roman	6	smart	3
Irish	5	religious	2
praying	5	bewildered	2
few	4	many	2
friendly	4		
wealthy	3		
good	3		
traditional	3		
conservative	3		
strict	2		
bigot	2		
loyal	2		
many	2		
powerful	2		

Birth (n=225)

premature	59
normal	17
easy	14
joyous	12
happy	9
new	8
beginning	7
painful	6
natural	5
live	4

Atheists (n=225)

screaming	12	exciting	4
destructive	6	sad	3
ungodly	5	traumatic	2
unbelieving	5	wonderful	2

few	4
radical	3
stupid	3

Death (n=225)

sad	30
-----	----

(Death)

lingering	13
peaceful	10
painful	8
sudden	8
final	6
ending	6
premature	4
tragic	3
continuing	3
quiet	3
timely	3
inevitable	3
slow	3

Birthday (n=225)

happy	103
celebrating	7
old	6
frequent	2
first	2

Christmas (n=161)

merry	60
joyful	16
white	13

(Christmas)

holy	5
snowy	2

Easter (n=225)

happy	60
joyful	32
quiet	5
beautiful	4
bright	4
sunny	4
beginning	3
Christian	3
solemn	2
religious	2
holy	2
green	2
yellow	2

Passover (n=100)

religious	17
good	4
sorrowful	2
beautiful	2

Holiday (n=225)

happy	28
gay	14
free	11
fun	11
restful	9
joyous	6
quiet	5
relaxing	5
welcome	5
good	4
tragic	4
summer	2
religious	2
long	2
family	2

(Baptism)

beautiful	3
flowery	2

Marriage (n=225)

happy	27
loving	10
good	8
lasting	8
binding	7
beautiful	6
combining	3
quiet	3
unhappy	2
together	2
union	2
shotgun	2

Conversion (n=100)

total	13
quick	4
graceful	2

Divorce (n=225)

sad	27
unfortunate	8
bitter	7
quick	7
separating	6
harsh	5
unhappy	5

Baptism (n=100)

watery	11
emerging	4

(Divorce)

(Relocation)

selfish	3	larger	4
bad	3	exciting	4
necessary	3	necessary	4
difficult	3	urban	3
painful	3	unhappy	3
sudden	3	forced	3
heartbreaking	2	vast	3
never	2		
tragic	2		
messy	2		

Anniversary (n=225)

Location (n=100)

		happy	62
		observing	12
		golden	11
good	9	wedding	10
pretty	5	celebrating	9
expensive	5	memorable	7
dirty	2	silver	6
poor	2	first	5

Relocation (n=225)

		fun	3
		yearly	2
ideal	12	beautiful	2
convenient	8		
new	8		
beautiful	7		
upsetting	5		
difficult	5		

Wedding (n=225)

beautiful	28
happy	21
white	8

(Wedding)

shotgun

5

gay

4

small

4

large

4

pretty

4

sad

3

joyful

3

big

3

church

2

quiet

2

joyous

2

lovely

2

traditional

2

golden

2

uniting

2

Festival (n=100)

gay

12

colorful

6

joyful

5

noisy

4

Feast (n=100)

happy

8

joyful

4

(Feast)

pleasant

2

friendly

2

tearful

2

Reunion (n=225)

happy

30

thankful

19

family

13

bountiful

9

grateful

7

class

3

joyful

3

fun

3

many

2

blessed

2

gay

2

school

2

loving

2

twenty-fifth

2

Thanksgiving (n=225)

happy

20

free

17

thankful

17

bountiful

6

(Thanksgiving)

(Independence)

complete	5	personal	9
stuffing	4	quiet	5
full	3	earned	5
plentiful	3	important	4
prayerful	3	complete	4
family	3	freedom	4
grateful	2	necessary	3
good	2	glorious	3
joyful	2	noisy	3
our	2	new	2
		good	2
		revolutionary	2
		precious	2
Independence (n=225)			
fourth	41		
free	25		
American	10		
joyous	10		

¹100 ss responded to this word twice

²92 ss responded to this word twice

References

- Barsness, W. D., & Jenkins, J. J. Verbal association strength and response transfer. Child Development, 1968, 39, 1201-1211.
- Berlyne, D. E. Structure and direction in thinking. New York: John Wiley, 1965.
- Bilodeau, E. A., & Howell, D. C. Free association norms by discrete and continued methods. Washington: Office of Naval Research, 1965.
- Bleuler, E. Dementia praecox or the group of schizophrenias. New York: International Universities Press, 1950.
- Cramer, Phebe. Word association. New York: Academic Press, 1968.
- Deese, J. The structure of association in language and thought. Baltimore: John Hopkins University Press, 1965.
- Dicken, C. F. Cognitive meaning as a determinant of stimulus generalization. Unpublished manuscript, University of Minnesota, 1957.
- Entwisle, D. R. Word associations of young children. Baltimore: John Hopkins Press, 1966.
- Jenkins, J. J. Effects on word association of the set to give popular responses. Psychological Reports, 1959, 5, 94.
- Jenkins, J. J. Mediated associations: Paradigms and situations. In C. N. Cofer and B. S. Musgrave (Eds.), Verbal behavior and learning. New York: McGraw-Hill, 1963.
- Jenkins, J. J. Commonality of association as an index of style. In T. A. Sebeok (Ed.), Style in language. Cambridge: Massachusetts Institute of Technology Press, 1968.
- Jenkins, J. J., & Brown, L. K. The use of interspersed test items in measuring mediated response transfer. Journal of Verbal Learning and Verbal Behavior, 1965, 4, 425-429.
- Jenkins, J. J., Foss, D. J., & Odom, P. B. Associative mediation in paired-associate learning with multiple controls. Journal of Verbal Learning and Verbal Behavior, 1965, 4, 141-147.
- Jenkins, J. J., Mink, W. D., & Russell, W. A. Associative clustering as a function of verbal association strength. Psychological Reports, 1958, 4, 127-136.

- Jenkins, J. J., & Palermo, D. S. A note on scoring word association tests. Journal of Verbal Learning and Verbal Behavior, 1964, 3, 158-160.
- Jenkins, J. J., & Palermo, D. S. Further data on changes in word association norms. Journal of Personality and Social Psychology, 1965, 1, 303-309.
- Jenkins, J. J., & Postman, L. J. The Minnesota conference on associative processes in verbal behavior. American Psychologist, 1957, 12, 499-500.
- Jenkins, J. J., & Russell, W. A. Associative clustering in recall. Journal of Abnormal and Social Psychology, 1952, 47, 818-821.
- Jenkins, J. J., & Russell, W. A. Final report. Unpublished manuscript, University of Minnesota, 1958.
- Jenkins, J. J., & Russell, W. A. Systematic changes in word association norms, 1910-1952. Journal of Abnormal and Social Psychology, 1960, 60, 293-304.
- Jenkins, J. J., & Russell, W. A. Associative clustering and commonality or response in the Kent-Rosanoff test. Unpublished manuscript, University of Minnesota. (a)
- Jenkins, J. J., & Russell, W. A. Miscellaneous studies in word association. Unpublished manuscript, University of Minnesota. (b)
- Jenkins, J. J., Russell, W. A., & Sulci, G. J. An atlas of semantic profiles for 360 words. American Journal of Psychology, 1958, 71, 688-699.
- Jenkins, J. J., Russell, W. A. & Sulci, G. J. A table of distances for the semantic atlas. American Journal of Psychology, 1959, 72, 623-625.
- Jung, C. G. Collected works. Vol. 2. Experimental researches. Princeton: Princeton University Press, 1973.
- Laffal, J. Pathological and normal language. New York: Atherton Press, 1965.
- Miller, G. A. Language and communication. New York: McGraw-Hill, 1951.
- Mink, W. D. Semantic generalization as related to word association. Unpublished doctoral dissertation, University of Minnesota, 1957.
- Norman, W. T. Stability characteristics of the semantic differential. Unpublished manuscript, University of Minnesota.
- O'Neil, W. M. The effect of verbal association on tachistoscope recognition. Australian Journal of Psychology, 1953, 5, 42-45.

- Palermo, D. S., & Jenkins, J. J. Frequency of superordinate responses to a word association test as a function of age. Journal of Verbal Learning and Verbal Behavior, 1963, 1, 378-383.
- Palermo, D. S., & Jenkins, J. J. Paired-associate learning as a function of the strength of links in the associative chain. Journal of Verbal Learning and Verbal Behavior, 1964, 3, 406-412. (a)
- Palermo, D. S., & Jenkins, J. J. Word association norms: Fourth grade through college. Minneapolis: University of Minnesota Press, 1964. (b)
- Palermo, D. S., & Jenkins, J. J. Changes in the word associations of fourth- and fifth-grade children from 1916 to 1961. Journal of Verbal Learning and Verbal Behavior, 1965, 4, 180-197. (a)
- Palermo, D. S., & Jenkins, J. J. Sex differences in word associations. Journal of General Psychology, 1965, 72, 77-84. (b)
- Peterson, M. S., & Jenkins, J. J. Word association at the individual level: A pair of case studies. Unpublished manuscript, University of Minnesota, 1957.
- Postman, L., & Keppel, G. (Ed.) Norms of word association. New York: Academic Press, 1970.
- Russell, W. A., & Jenkins, J. J. Associative clustering and response rank in the Kent-Rosanoff test. Unpublished manuscript, University of Minnesota.
- Ryan, J. J. III. An experimental comparison of response transfer facilitated by meaningfully similar and associated verbal stimuli. Unpublished doctoral dissertation, University of Minnesota, 1957.
- Storms, L. H. Apparent backward association: A situational effect. Journal of Experimental Psychology, 1958, 55, 390-395.
- Ullmann, L. P., Krasner, L., & Edinger, R. L. Verbal conditioning of common associations in long-term schizophrenic patients. Behavior Research and Therapy, 1964, 2, 15-18.
- Wicklund, D. A., Palermo, D. S., & Jenkins, J. J. The effects of associative strength and response hierarchy on paired associate learning. Journal of Verbal Learning and Verbal Behavior, 1964, 3, 413-420.
- Wicklund, D. A., Palermo, D. S., & Jenkins, J. J. Associative clustering in the recall of children as a function of verbal association strength. Journal of Experimental Child Psychology, 1965, 2, 58-66.
- Woodworth, R. S. Experimental psychology. New York: Henry Holt, 1938.